IN THE CLAIMS:

Please cancel claims 32-34 without prejudice.

23. (Original) An integrated optical assembly, comprising:

a fiber collimator that redirects and collimates a light beam from an optical source input, creating a collimated light beam;

at least two focusing optical subassemblies, the at least two focusing optical subassemblies being aligned along a common axis; and

an optically transparent block that receives the collimated light beam from the fiber collimator, the optically transparent block having a top side coated to act as a reflective mirror and a bottom side including thin film filters (TFFs), each with a different passband wavelength and each being positioned over each focusing optical subassembly, the top side being the side opposite to at least one of the fiber collimator and the focusing optical subassemblies,

wherein the collimated light beam travels in a zig-zag fashion within the optically transparent block, wavelength components of the collimated light beam being separated from each other by the TFFs with matching passband wavelengths and focused by the focusing optical subassemblies below the TFFs.

24. (Original) The integrated optical assembly of claim 23, further comprising a connector housing that receives a fiber optical connector; and

a ledge structure adapted for positioning a printed circuit board, the printed circuit board being parallel to, and at a distance from, aspheric lenses of the focusing optical subassemblies when positioned in the ledge structure.

25. (Original) The integrated optical assembly of claim 24, wherein the integrated optical assembly is manufactured using injection molding of an optically transparent plastic.

26. (Previously Presented) The integrated optical assembly of claim 24, further comprising an optical multiplexer, wherein the connector housing receives a duplex optical fiber, and the printed circuit board being also parallel to, and at a distance from, aspheric lenses of collimating optical subassemblies of the optical multiplexer when positioned in the ledge structure.

27. (Original) The integrated optical assembly of claim 26, wherein the integrated optical assembly is manufactured using injection molding of an optically transparent plastic.

28. (Previously Presented) The integrated optical assembly of claim 26, wherein aspheric lenses of the focusing optical subassemblies have a different prescription than aspheric lenses of the collimating optical subassemblies, and an array of photodetectors and an array of point sources reside on the printed circuit board having different heights.

29. (Original) An optical multiplexer of a zig-zag design, comprising:

a fiber coupler that redirects and couples a light beam with different wavelength

components into an optical fiber;

at least two collimating optical subassemblies receiving light beams from different point sources, the at least two collimating optical subassemblies being aligned along a common axis;

an optically transparent block that receives light beams with different wavelength components, the optically transparent block having a top side coated to act as a reflective mirror and a bottom side including thin film filters (TFFs), each with a different passband wavelength and each being positioned over each collimating optical subassembly, the top side being the side opposite to at least one of the fiber coupler and the collimating optical subassemblies, wherein light beams from the point sources travel through the collimating optical subassemblies, the TTFs, the optically transparent block and the fiber coupler into the optical fiber.

30. (Original) The optical multiplexer of claim 29, wherein aspheric lenses for collimating and focusing a light beam diverging from one of the point sources having a particular sized aperture are used to project an image from the point source onto the fiber core with a controlled degree of magnification, which controls the sized aperture of the light beam delivered to the optical fiber and the resulting coupling efficiency.

31. (Original) The optical multiplexer of claim 29, wherein aspheric lenses for collimating and focusing a light beam diverging from one of the point sources having a particular sized aperture are used to project an image from the point source onto the fiber core with a controlled degree of magnification, which controls the tolerance of the

coupling efficiency into the optical fiber to a displacement of the point source.

32-34 (Cancelled)

35. (Original) An integrated optical subassembly, comprising:

a fiber coupler that redirects and couples a light beam with different wavelength components into an optical fiber;

at least two collimating elements that receives elliptically divergent light beams from edge-emitting lasers, the at least two collimating elements being aligned along a common axis and spaced so that the elliptically divergent light beams become redirected and collimated into circular or nearly circular light beams;

an optically transparent block that receives the circular or nearly circular light beams with different wavelength components, the optically transparent block having a top side coated to act as a reflective mirror and a bottom side including thin film filters (TFFs), each with a different passband wavelength and each being positioned over each collimating element, the top side being the side opposite to at least one of the fiber coupler and the collimating optical subassemblies, wherein the circular or nearly circular light beams travel through the TTFs, the optically transparent block and the fiber coupler into the optical fiber.

36. (Original) The integrated optical assembly of claim 35, further comprising connector housing that receives a fiber optical connector; and

a ledge structure suitable for positioning a printed circuit board, the printed circuit

board being parallel to, and at a distance from, aspheric lenses of the collimating elements when positioned in the ledge structure.

37. (Previously Presented) The integrated optical assembly of claim 36, further comprising an optical de-multiplexer, the connector housing receives a duplex optical fiber; and the printed circuit board being also parallel to, and at a distance from, aspheric lenses of focusing optical subassemblies of the optical de-multiplexer when positioned in the ledge structure.

38. (Original) The integrated optical assembly of claim 37, wherein the integrated optical assembly is manufactured using injection molding of an optically transparent plastic.